

ABSTRACT

To implement light quantity monitoring with high frequency responsivity and correction of astigmatic differences of a semiconductor laser with a simple configuration with a fewer parts.

Of the light beam output from a semiconductor laser light source 101, a peripheral beam component is entered by a light reflection element 107 into an anterior light monitoring photodetector 103 formed in the vicinity of a semiconductor laser light source 101. Furthermore, the surface of the reflection sphere of the light reflection element is formed anamorphic, and thus condensed to an appropriate size on the photodetector without being focused, providing high frequency responsivity. Furthermore, the light reflection element 107 is placed inclined at a predetermined angle so as to cancel out astigmatic difference of the optical semiconductor laser light source 101. In addition, the photodetector 103 is placed in the direction so that a reflected light 108 is bent by an inclination of the light reflection element 107, reducing the amount of parallel displacement during adjustment of the light reflection element 107.